Appl. No. 10/668,555 Amdt. dated 05/20/2006

Reply to Office communication of 01/05/2006

REMARKS/ARGUMENTS

Claims 1~12 are withdrawn into a division in Applicant's earlier response for a

restriction requirement.

Claim 13 is amended by emphasizing that the permanent metal substrate can be

plated only after completing the electrodes which are generally formed through an

annealing process.

The Examiner's rejections to claim 13 have been carefully reviewed, in which

Ishikawa et al. teach a plane LED structure and Chen et al. teach a method for plating a

cupper substrate beneath a mirror.

The Applicant understands that Ishikawa et al.'s plane LED structure without

any plated metal substrate is known by one skilled in this art. The Applicant also

understands that Chen et al. teach plating the metal layer (70) either directly on the

ohmic electrode (68), or on a mirror which is deposited on the ohmic electrode (68). In

other words, Chen et al. never teach plating a metal substrate beneath a mirror which is

deposited beneath an epitaxial layer as the Applicant's.

Moreover, Ishikawa et al.'s GaAs substrate (301) is remained in the LED

structure, and Chen et al.'s temporary substrate (60) is removed after the metal substrate

(70) is plated on the opposite side. In the Applicant's process and structure, the metal

substrate is plated on the mirror which is exposed by removing the temporary substrate,

i.e., the plated substrate basically replaces the temporary substrate and thus is formed \underline{on}

the same side.

Accordingly, the Applicant takes a position that a lot in the present invention

are never taught by Ishikawa et al. and Chen et al, and the present invention couldn't be

achieved by simply combining Ishikawa et al. and Chen et al's structures.

The Applicant also believes that Chen et al.'s process is unfeasible and thus the

LED fabricated by employing this process could not exist since the plated metal

6

Appl. No. 10/668,555 Amdt. dated 05/20/2006

Reply to Office communication of 01/05/2006

during the annealing process for forming the bonding pad (78).

To exclude the case in Chen's disclosure, the Applicant's permanent metal

substrate (70) and semiconductor layers (62, 64 and 66) will be destroyed or cracked

substrate is further defined to be plated after completing the electrodes.

Claims 14~15, 18~25 are remained original as the Applicant believes that the

amended claim 13 may overcome the Examiner's rejection. Further, the epitaxial layers

and mirrors mentioned in claims 21~23 are not key features as well as the plated

substrate formed beneath a plane LED. Therefore, the Applicant thinks that it's suitable

for claiming material of the epitaxial layers and the respective mirrors. However, if the

Examiner suggests to cancel claims 21~23, the Applicant will do.

Claims 16&17 were canceled in an earlier amendment.

The Applicant also believes that the amendments and remarks/arguments are a

complete response to the Examiner's rejections, and thus respectfully requests that a

timely Notice of Allowance be issued in this case.

Respectfully submitted,

Thoulang Barbey

Charles E. Baxley

90 John Street-Third Floor

New York, N.Y. 10038-3243

U.S.A.

7